Amendments to the Claims

The following represents a complete current status of all the claims in the present application, including amendments made by this paper. Any claims withdrawn or canceled in the prosecution of this application are done so without prejudice or disclaimer of any subject matter therein and the applicant reserves the right to pursue such claims in future continuing or divisional applications. By this paper, applicant is amending claims 1-3.

Listing of Claims.

1(currently amended). An apparatus for controlling the load on articular cartilage forming part of an articular joint connecting a first bone to a second bone of a human or animal joint comprising:

(a) a first fixation assembly for attachment to ~~a~~ the first bone;

(b) a second fixation assembly for attachment to ~~a~~ the second bone; and

(c) a link assembly coupled to the first fixation assembly by a first pivot and coupled to the second fixation assembly by a second pivot, the first and second fixation assembly thereby each being angularly displaceable relative to the link assembly.

2(currently amended). The apparatus according to claim 1 in which the first fixation assembly includes at least one pin for engaging with ~~a~~ the first bone.

3(currently amended). The apparatus according to claim 2 in which the first fixation assembly includes a clamp for mounting a plurality of pins each for engaging with ~~a~~ the first bone, said plurality of pins being spaced along the length of the first fixation assembly.

4(original). The apparatus of claim 1 in which the first fixation assembly includes engagement means for engaging at least one bone pin, the engagement means being rotatable about a longitudinal axis of the first fixation assembly.

5(original). The apparatus of claim 1 in which the first fixation assembly includes engagement means for engaging at least one bone pin, the engagement means being rotatable about a transverse axis of the first fixation assembly.

6(original). The apparatus of claim 2 in which the first fixation assembly includes engagement means for engaging at least one bone pin, the engagement means being independently rotatable about a longitudinal axis and a transverse axis of the first fixation assembly.

7(previously presented). The apparatus according to one of claims 1-6 in which the first fixation assembly is coupled to

the link assembly by way of a first pivot in a manner selected from the group consisting of those having one and two degrees of rotational freedom

8(canceled).

9(previously presented). The apparatus according to claim 1 in which the link assembly includes a fixed separation member for maintaining said first and second pivots at a fixed distance of separation.

10(previously presented). The apparatus according to claim 1 in which the link assembly includes a variable separation member for permitting the first and second pivots to vary in their distance of separation within predetermined limits.

11(original). The apparatus according to claim 10 in which the variable separation member includes bias means for biasing the first and second pivots towards a maximum limit of separation distance.

12(original). The apparatus according to claim 10 in which the variable separation member includes bias means for biasing the first and second pivots towards a minimum limit of separation distance.

13(original). The apparatus according to claim 10 in which the variable separation member includes bias means for biasing the first and second pivots towards an intermediate distance of separation between said predetermined limits.

14(previously presented). The apparatus according to claim 1 further including means for limiting the angular displacement of the first fixation assembly relative to the link assembly and/or means for limiting the angular displacement of the second fixation assembly relative to the link assembly.

15(previously presented). The apparatus according to claim 1 further including means for varying separation of the first fixation assembly and the second fixation assembly as a function of the angular displacement of either fixation assembly relative to the link assembly.

16(previously presented). The apparatus according to claim 1 further including a drive member coupled to the first fixation assembly and to the second fixation assembly for controllably varying the angular displacement of the first and second fixation assemblies relative to one another.

17(original). The apparatus according to claim 10 in which the variable separation member further includes drive means for controllably varying the distance of separation of the first and second pivots.

18(previously presented). The apparatus according to claim 1 further including a sensor adapted to monitor the load applied across the link assembly.

19(original). The apparatus according to claim 18 in which the sensor is adapted to monitor any one of the tensile load,

compression load, shear forces or bending forces applied across the link assembly.

20(original). The apparatus according to claim 19 in which the sensor comprises a strain gauge.

21(previously presented). The apparatus according to any one of claims 1 to 6 comprising a pair of link assemblies each pivotally anchored to both the first and second fixation assemblies and laterally displaced from one another.

22(original). The apparatus according to claim 21 in which the pair of link assemblies comprise a first link member and a second link member that are laterally and angularly displaced from one another.

23(original). The apparatus according to claim 22 in which the first link member and the second link members are disposed in a crosswise formation.

24(original). The apparatus according to claim 1 further including a second corresponding apparatus for coupling thereto by a plurality of bone pins.

25(canceled).

26(previously presented). A method of controlling loading on a joint comprising the steps of:

(a) attaching a first fixation assembly to a first bone;

(b) attaching a second fixation assembly to a second bone, the second bone being connected to the first bone by an articulating joint; and

(c) coupling said first fixation assembly and said second fixation assembly by way of a link assembly so that said first fixation assembly and said second fixation assembly are each angularly displaceable relative to the link assembly.

27(original). The method according to claim 26 further comprising attaching one or both of said fixation assemblies to their respective bones such that the respective bone is rotatable about a longitudinal axis of the fixation assembly.

28(original). The method according to claim 26 further comprising attaching one or both of said fixation assemblies to their respective bones such that the respective bone is rotatable about a transverse axis of the fixation assembly.

29(original). The method according to claim 26 in which the angular displacement permitted between the first fixation assembly and the link assembly and/or between the second fixation assembly and the link assembly respectively comprise one degree of rotational freedom.

30(original). The method according to claim 26 in which the angular displacement permitted between the first fixation assembly and the link assembly and/or between the second

fixation assembly and the link assembly respectively comprise two degrees of rotational freedom.

31(original). The method according to any one of claims 26 to 30 further including the step of adjusting a distance of separation of said first and second fixation assemblies to adjust the loading on the joint.

32(previously presented). The method according to any one of claims 26 to 30 further comprising the step of limiting the permitted angular displacement of the first fixation assembly relative to the link assembly and/or limiting the angular displacement of the second fixation assembly relative to the link assembly.

33(previously presented). The method according to any of claims 26 to 30 further including the step of varying the angular displacement of the first and second fixation assemblies relative to one another by a powered mechanical drive mechanism.

34(previously presented). The method according to claims 26 to 30 further including the step of deploying a sensor to record load applied across the link assembly.